

Ref: 552A-0D-117

16 September 1965

Post Office Box 9474
Rosslyn Station
Arlington, Virginia 22209

Subject: [REDACTED] Progress Report - August 1965
Project 552A

Gentlemen,

Enclosed are three (3) copies of [REDACTED] Progress
Report on Project 552A for the period August 1965.

Very truly yours,

[REDACTED]

Vice President - Operations

LHB/de

DECLASS REVIEW by NGA

Enc: (3) P.R.

Cert. #743902

PROGRESS REPORT
For
VERSATILE, HIGH PRECISION STEREO
POINT TRANSFER DEVICE

Period Covered: August 1965
Dated: 14 September 1965
Job No.: #552A
Document No.: OD-115

552A - OD-115

PROGRESS REPORT
For
VERSATILE, HIGH PRECISION STEREO
POINT TRANSFER DEVICE

Final debugging and preparing equipment for customer approval and shipment have been the principal work done on 552A-101 Companion Stereo Viewer during the reporting period. Fabrication and assembly effort continued on the other four (4) machines.

SHIPPING CONSIDERATIONS MADE

As an aid for shipping main instrument console, a vibration isolating pallet was made with a surrounding protective box. Additional supports for eyepiece, fiber optics cables, eyepiece superstructure and objective assemblies were made to minimize their vibration or movement in shipping. Auxiliary and control cabinets received no packaging treatment except for a plastic cover and clamping of vacuum pump.

The moving van must have air springs, or equivalent suspension for good shock control during equipment transport. Handling during loading and unloading can create problems if caution is not used. The pallet built for the main instrument console was designed to minimize shocks during this phase by isolating outer parts of shipping container from an inner pallet containing the console. All packaging devices were durably made so that all the remaining systems may be served by them.

552A - OD-115

VACUUM FILM HOLDDOWN

Because the vacuum film holddown system did not perform smoothly with sample films brought by customer, further improvement was necessary. Film tensioning was found to remove wrinkles and reduce holddown evacuation time to some degree. A manual method of providing this tension was devised where one brake in each film drive mechanism is released for an adjustable time period permitting operator to tension film slightly before air is evacuated from under film. At the instant the air evacuation process begins, the brakes engage, keeping tension on film, making unnecessary further assistance by operator in the film holddown procedure. Degree of tension is equal to that seen in winding up film onto spools.

Glass platens that were scratched were replaced with new ones at the time of equipment installation. Scratched platens will be used on each succeeding machine as a trial device, sparing possible damage to new platens during assembly and test. As center holddown flexible edges were found to scratch film slightly, they were replaced with new, highly polished, chromium plated parts.

EYEPIECE ASSEMBLY

All neutral density filters used for image brightness attenuation have been replaced to improve image quality caused by wrinkles in original ones. Distortions were caused by unequal clamping pressure against filters which normally should be floating in their mounts.

552A - OD-115

NEXT SYSTEMS

Work is now underway to update the Point Transfer Device and companion Stereo Viewers to the point of the first machine now being shipped. For greater efficiency, corresponding work on all machines is being carried together, wherever possible. All effort is being made to honor schedule recently forwarded, but some slippage will be seen because of the parallel advancement of the remaining four (4) systems.

Attachments

- 1) Financial Report
- 2) Customer Review Meetings, OD-120 and OD-121

14 September 1965
552A - CD-120
WWB:rf

REVIEW OF CUSTOMER VISIT

DATE: 9, 10, 11 August 1965

9 AUGUST 1965

- 1) Field lenses dirty (R&L).
- 2) Right channel appeared not as sharp as left.
- 3) Equipment worked well without malfunctions. Many of party were operators and supporting personnel getting acquainted with system.
- 4) Preliminary tests were started with some question of systems optical performance. Part of problem was film being used.

10 AUGUST 1965 * = Principal Problems

- 1) Test work continued using test outline with additions by customer.
- 2) Left 50% neutral filter in eyepiece degrades image badly.
- 3) *Dot reticles not centered with zoom expansion, and perhaps image rotation. Image to be centered within 12 minutes of center.
- 4) *Right format, all sizes, vacuum holddown has frequent bubbles near center at rear.
- 5) Loop forming rollers stopped short of rest position above platens, appeared to get stuck on something in film loop slot.
- 6) Film torn in right rear manifold.

25X1

552A - CD-120

7) *Customer unhappy with scratches in platens.
Must be polished, or replaced.

11 AUGUST 1965

1) Continued with optical checkout. Corrections were made to left channel dot centering, objective lens centering both channels, and to vacuum holddown with optics making the grade, film holddown not making the grade.

2) Center holddown scratches film. Must be polished and chromium plated.

3) Vacuum film holddown still is unreliable:

A) Works with our old films although pulldown times have been extended with many trials up to 2 minutes.

B) Customer's new films, however, did not work well; bubbles would not evacuate.

14 September 1965
552A - CD-121
WWB:rf

REVIEW OF CUSTOMER VISIT

DATE: 19 August 1965

1) Tensioning of film prior to vacuum holddown worked well.

A) LH platen was slow with some wrinkles impeding operation. RH platen worked very well. Alignment of front manifold LH side appeared to restrain film flattening.

B) 70mm did not require tension for operation.

C) Customer representative appeared to adapt quickly to method.

2) Scanning drive correspondence checked with several channel magnification differences of 10X, 20X, 30X and 40X. Customer believed correspondence to be good.

3) In telephone discussions with PL, machine was found acceptable for shipment.